Nucleonics sequence listing v5.txt
                    SEQUENCE LISTING

<110>   Nucleonics, Inc.
        Pachuk, Catherine
        Satishchandran, C.
        Zurawski, Vincent
        Mintz, Liat

<120>   Conserved HBV and HCV Sequences Useful for Gene Silencing

<130>   26788-002

<150>   60/478,076
<151>   2003-06-12

<160>   48

<170>   PatentIn version 3.2

<210>   1
<211>   138
<212>   DNA
<213>   Hepatitis B Virus

<220>
<221>   misc_feature
<222>   (137)..(137)
<223>   n is a, c, g, or t

<400>   1
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tttctygttg acaaraatcc tcacaatacc dcagagtcta gactcgtggt ggacttctct   120

caattttcta ggggdany   138

<210>   2
<211>   26
<212>   DNA
<213>   Hepatitis B Virus

<400>   2
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<210>   3
<211>   206
<212>   DNA
<213>   Hepatitis B Virus

<220>
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<223>   n is a, c, g, or t

<220>
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<223>   n is a, c, g, or t

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<220>
<221>  misc_feature
<222>  (140)..(140)
<223>  n is a, c, g, or t

<220>
<221>  misc_feature
<222>  (174)..(174)
<223>  n is a, c, g, or t

<220>
<221>  misc_feature
<222>  (177)..(177)
<223>  n is a, c, g, or t

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ctntgccaag tgtttgctga cgcaacccCC actgghtggg gcttggybat nggccatcrs     120

cgcatgcgtg gaacctttbn gkctcctctg ccgatccata ctgcggaact cctngcngcb    180

tgtttygctc gcagcmggtc tggrgc                                         206


<210>  4
<211>  119
<212>  DNA
<213>  Hepatitis B Virus

<400>  4
yactgttcaa gcctcaagct gtgccttggg tggctttrgg rcatggacat tgacmcktat      60

aaagaatttg gagctwctgt ggagttactc tcdtttttgc cttcygactt ytttccttc     119


<210>  5
<211>  101
<212>  DNA
<213>  Hepatitis B Virus

<400>  5
cgabgcaggt cccctagaag aagaactccc tcgcctcgca gacgmgrtct caatcgmcgc      60

gtcgcagaag atctcaatyt cgggaatcty aatgttagta t                        101


<210>  6
<211>  99
<212>  DNA
<213>  Hepatitis B Virus

<400>  6
abgcaggtcc cctagaagaa gaactccctc gcctcgcaga cgmgrtctca atcgmcgcgt      60

cgcagaagat ctcaatytcg ggaatctyaa tgttagtat                            99


<210>  7
<211>  100
<212>  DNA
<213>  Hepatitis B Virus
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Nucleonics sequence listing v5.txt
<400> 7
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tcgcagaaga tctcaatytc gggaatctya atgttagtat   100

<210> 8
<211> 100
<212> DNA
<213> Hepatitis B Virus

<400> 8
gabgcaggtc ccctagaaga agaactccct cgcctcgcag acgmgrtctc aatcgmcgcg   60

tcgcagaaga tctcaatytc gggaatctya atgttagtat   100

<210> 9
<211> 104
<212> DNA
<213> Hepatitis B Virus

<220>
<221> misc_feature
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<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (38)..(38)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (72)..(72)
<223> n is a, c, g, or t

<220>
<221> misc_feature
<222> (75)..(75)
<223> n is a, c, g, or t

<400> 9
ttggybatng gccatcrstg catgcgtgga acctttbngk ctcctctgcc gatccatact   60

gcggaactcc tngcngcbtg tttygctcgc agcmggtctg grgc   104

<210> 10
<211> 71
<212> DNA
<213> Hepatitis B Virus

<220>
<221> misc_feature
<222> (71)..(71)
<223> n is a, c, g, or t

<400> 10
ctgccaactg gathcthcgc gggacgtcct ttgtytacgt cccgtcrgcg ctgaatcchg   60

Nucleonics sequence listing v5.txt

cggacgaccc n   71

```
<210>  11
<211>  490
<212>  DNA
<213>  Hepatitis C Virus


<220>
<221>  misc_feature
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<223>  n is a, c, g, or t

<220>
<221>  misc_feature
<222>  (434)..(434)
<223>  n is a, c, g, or t

<220>
<221>  misc_feature
<222>  (455)..(455)
<223>  n is a, c, g, or t

<220>
<221>  misc_feature
<222>  (476)..(476)
<223>  n is a, c, g, or t

<220>
<221>  misc_feature
<222>  (488)..(488)
<223>  n is a, c, g, or t

<400>  11
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gtatgagtgt ygtgcagcyt ccaggncccc ccctcccggg agagccatag tggtctgcgg   120

aaccggtgag tacaccggaa ttgccrggah gaccgggtcc tttcttggat daacccgctc   180

watgccygga vatttgggcg tgcccccgcr agacygctag ccgagtagyg ttgggtygcg   240

aaaggccttg tggtactgcc tgatagggtg cttgcgagtg ccccgggagg tctcgtagac   300

cgtgcahcat gagcacrmwt cchaaacchc aaagaaaaac caaamgwaac accaaccgyc   360

gcccacagga cgthaagttc ccgggyggyg ghcagatcgt tggbggagth tacbtgttgc   420

cgcgcagggg cccnmvdttg ggtgtgcgcg cgacnaggaa gacttcbgar cggtcncarc   480

chcghggnag                                                          490


<210>  12
<211>  29
<212>  DNA
<213>  Hepatitis C Virus


<220>
<221>  misc_feature
<222>  (6)..(6)
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Nucleonics sequence listing v5.txt
<223> n is a, c, g, or t

<400> 12
atggcntggg atatgatgat gaactggyc   29

<210> 13
<211> 265
<212> DNA
<213> Homo sapiens

<400> 13
aaggtcgggc aggaagaggg cctatttccc atgattcctt catatttgca tatacgatac   60

aaggctgtta gagagataat tagaattaat ttgactgtaa acacaaagat attagtacaa   120

aatacgtgac gtagaaagta ataatttctt gggtagtttg cagtttttaaa attatgtttt   180

aaaatggact atcatatgct taccgtaact tgaaagtatt tcgatttctt ggctttatat   240

atcttgtgga aaggacgaaa caccg   265

<210> 14
<211> 51
<212> DNA
<213> Artificial

<220>
<223> eiRNA encoding sequence mapping to HBV-AYW coordinates 788-808 in
       Genebank accession # V01460

<400> 14
cgtctgcgag gcgagggagt tagagaactt aactccctcg cctcgcagac g   51

<210> 15
<211> 51
<212> DNA
<213> Artificial

<220>
<223> eiRNA encoding sequence mapping to HBV-AYW coordinates 807-827 in
       Genebank accession # V01460

<400> 15
ttcttcttct aggggacctg cagagaactt gcaggtcccc tagaagaaga a   51

<210> 16
<211> 51
<212> DNA
<213> Artificial

<220>
<223> eiRNA encoding sequence mapping to HBV-AYW coordinates 1291-1311
       in Genebank accession # V01460

<400> 16
aagccaccca aggcacagct tagagaactt aagctgtgcc ttgggtggct t   51

<210> 17

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Nucleonics sequence listing v5.txt
```
<211>   51
<212>   DNA
<213>   Artificial

<220>
<223>   eiRNA encoding sequence mapping to HBV-AYW coordinates 1299-1319
        in Genebank accession # V01460

<400>   17
caaggcacag cttggaggct tagagaactt aagcctccaa gctgtgcctt g            51


<210>   18
<211>   51
<212>   DNA
<213>   Artificial

<220>
<223>   eiRNA encoding sequence mapping to HBV-AYW coordinates 1737-1757
        in Genebank accession # V01460

<400>   18
ggattcagcg ccgacgggac gagagaactt cgtcccgtcg gcgctgaatc c            51


<210>   19
<211>   51
<212>   DNA
<213>   Artificial

<220>
<223>   eiRNA encoding sequence mapping to HBV-AYW coordinates 1907-1927
        in Genebank accession # V01460

<400>   19
ttccgcagta tggatcggca gagagaactt ctgccgatcc atactgcgga a            51


<210>   20
<211>   51
<212>   DNA
<213>   Artificial

<220>
<223>   eiRNA encoding sequence mapping to HBV-AYW coordinates 1912-1932
        in Genebank accession # V01460

<400>   20
cagtatggat cggcagagga gagagaactt ctcctctgcc gatccatact g            51


<210>   21
<211>   51
<212>   DNA
<213>   Artificial

<220>
<223>   eiRNA encoding sequence mapping to HBV-AYW coordinates 1943-1963
        in Genebank accession # V01460

<400>   21
tccacgcatg cgctgatggc cagagaactt ggccatcagc gcatgcgtgg a            51
```

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Nucleonics sequence listing v5.txt

```
<210>  22
<211>  51
<212>  DNA
<213>  Artificial

<220>
<223>  eiRNA encoding sequence mapping to HBV-AYW coordinates 1991-2011
       in Genebank accession # V01460

<400>  22
tgcgtcagca aacacttggc aagagaactt tgccaagtgt ttgctgacgc a          51


<210>  23
<211>  51
<212>  DNA
<213>  Artificial

<220>
<223>  eiRNA encoding sequence mapping to HBV-AYW coordinates 2791-2811
       in Genebank accession # V01460

<400>  23
aaaacgccgc agacacatcc aagagaactt tggatgtgtc tgcggcgttt t          51


<210>  24
<211>  51
<212>  DNA
<213>  Artificial

<220>
<223>  eiRNA encoding sequence mapping to HBV-AYW coordinates
       2791-2811mut in Genebank accession # V01460

<400>  24
aaaacaccac acacgcatcc aagagaactt tggatgcgtg tgtggtgttt t          51


<210>  25
<211>  51
<212>  DNA
<213>  Artificial

<220>
<223>  eiRNA encoding sequence mapping to HBV-AYW coordinates 2912-2932
       in Genebank accession # V01460

<400>  25
ttgagagaag tccaccacga gagagaactt ctcgtggtgg acttctctca a          51


<210>  26
<211>  51
<212>  DNA
<213>  Artificial

<220>
<223>  eiRNA encoding sequence mapping to HBV-AYW coordinates 2919-2939
       in Genebank accession # V01460

<400>  26
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                           Nucleonics sequence listing v5.txt
aagtccacca cgagtctaga cagagaactt gtctagactc gtggtggact t              51


<210>   27
<211>   101
<212>   DNA
<213>   Hepatitis C Virus

<400>   27
tttggtggct ccatcttagc cctagtcacg gctagctgtg aaaggtccgt gagccgcttg    60

actgcagaga gtgctgatac tggcctctct gcagatcaag t                       101


<210>   28
<211>   29
<212>   DNA
<213>   Artificial

<220>
<223>   siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>   28
gctaaacact ccaggccaat acctgtctc                                      29


<210>   29
<211>   29
<212>   DNA
<213>   Artificial

<220>
<223>   siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>   29
tcctttggtg gctccatctt acctgtctc                                      29


<210>   30
<211>   29
<212>   DNA
<213>   Artificial

<220>
<223>   siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>   30
gctccatctt agccctagtc acctgtctc                                      29


<210>   31
<211>   29
<212>   DNA
<213>   Artificial

<220>
<223>   siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>   31
tcttagccct agtcacggct acctgtctc                                      29


<210>   32
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Nucleonics sequence listing v5.txt
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<211>  29
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  32
cctagtcacg gctagctgtg acctgtctc                                         29


<210>  33
<211>  29
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  33
ctagtcacgg ctagctgtga acctgtctc                                         29


<210>  34
<211>  29
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  34
cgtgagccgc ttgactgcag acctgtctc                                         29


<210>  35
<211>  29
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  35
gctgatactg gcctctctgc acctgtctc                                         29


<210>  36
<211>  29
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  36
actggcctct ctgcagatca acctgtctc                                         29


<210>  37
<211>  21
<212>  DNA
<213>  Artificial
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Nucleonics sequence listing v5.txt

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<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  37
ctggcctctc tgcagatcaa g                                                    21


<210>  38
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  38
tgcagagagt gctgatactg g                                                    21


<210>  39
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  39
tgagccgctt gactgcagag a                                                    21


<210>  40
<211>  20
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  40
gaaaggtccg tgagccgctt                                                      20


<210>  41
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  41
tagctgtgaa aggtccgtga g                                                    21


<210>  42
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus
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Nucleonics sequence listing v5.txt

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<400>  42
ttagccctag tcacggctag c                                        21


<210>  43
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  43
tccatcttag ccctagtcac g                                        21


<210>  44
<211>  21
<212>  DNA
<213>  Artificial

<220>
<223>  siRNA encoding sequence mapping to X region of Hepatitis C Virus

<400>  44
ttggtggctc catcttagcc c                                        21


<210>  45
<211>  21
<212>  RNA
<213>  Hepatitis C Virus

<400>  45
aaccucaaag aaaaaccaaa c                                        21


<210>  46
<211>  21
<212>  RNA
<213>  Artificial

<220>
<223>  lamin siRNA

<400>  46
aacuggacuu ccagaagaac a                                        21


<210>  47
<211>  2652
<212>  DNA
<213>  Bacteriophage T7

<400>  47
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ttcaacactc tggctgacca ttacggtgag cgtttagctc gcgaacagtt ggcccttgag   120

catgagtctt acgagatggg tgaagcacgc ttccgcaaga tgtttgagcg tcaacttaaa   180

gctggtgagg ttgcggataa cgctgccgcc aagcctctca tcactaccct actccctaag   240
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Nucleonics sequence listing v5.txt

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atgattgcac gcatcaacga ctggtttgag gaagtgaaag ctaagcgcgg caagcgcccg   300

acagccttcc agttcctgca agaaatcaag ccggaagccg tagcgtacat caccattaag   360

accactctgg cttgcctaac cagtgctgac aatacaaccg ttcaggctgt agcaagcgca   420

atcggtcggg ccattgagga cgaggctcgc ttcggtcgta tccgtgacct tgaagctaag   480

cacttcaaga aaaacgttga ggaacaactc aacaagcgcg tagggcacgt ctacaagaaa   540

gcatttatgc aagttgtcga ggctgacatg ctctctaagg gtctactcgg tggcgaggcg   600

tggtcttcgt ggcataagga agactctatt catgtaggag tacgctgcat cgagatgctc   660

attgagtcaa ccggaatggt tagcttacac cgccaaaatg ctggcgtagt aggtcaagac   720

tctgagacta tcgaactcgc acctgaatac gctgaggcta tcgcaacccg tgcaggtgcg   780

ctggctggca tctctccgat gttccaacct tgcgtagttc ctcctaagcc gtggactggc   840

attactggtg gtggctattg ggctaacggt cgtcgtcctc tggcgctggt gcgtactcac   900

agtaagaaag cactgatgcg ctacgaagac gtttacatgc ctgaggtgta caaagcgatt   960

aacattgcgc aaaacaccgc atggaaaatc aacaagaaag tcctagcggt cgccaacgta  1020

atcaccaagt ggaagcattg tccggtcgag gacatccctg cgattgagcg tgaagaactc  1080

ccgatgaaac cggaagacat cgacatgaat cctgaggctc tcaccgcgtg gaaacgtgct  1140

gccgctgctg tgtaccgcaa ggacagggct cgcaagtctc gccgtatcag ccttgagttc  1200

atgcttgagc aagccaataa gtttgctaac cataaggcca tctggttccc ttacaacatg  1260

gactggcgcg gtcgtgttta cgctgtgtca atgttcaacc cgcaaggtaa cgatatgacc  1320

aaaggactgc ttacgctggc gaaaggtaaa ccaatcggta aggaaggtta ctactggctg  1380

aaaatccacg gtgcaaactg tgcgggtgtc gataaggttc cgttccctga gcgcatcaag  1440

ttcattgagg aaaaccacga gaacatcatg gcttgcgcta agtctccact ggagaacact  1500

tggtgggctg agcaagattc tccgttctgc ttccttgcgt tctgctttga gtacgctggg  1560

gtacagcacc acggcctgag ctataactgc tcccttccgc tggcgtttga cgggtcttgc  1620

tctggcatcc agcacttctc cgcgatgctc cgagatgagg taggtggtcg cgcggttaac  1680

ttgcttccta gtgaaaccgt tcaggacatc tacgggattg ttgctaagaa agtcaacgag  1740

attctacaag cagacgcaat caatgggacc gataacgaag tagttaccgt gaccgatgag  1800

aacactggtg aaatctctga gaaagtcaag ctgggcacta aggcactggc tggtcaatgg  1860

ctggcttacg gtgttactcg cagtgtgact aagcgttcag tcatgacgct ggcttacggg  1920

tccaaagagt tcggcttccg tcaacaagtg ctggaagata ttattcagcc agctattgat  1980

tccggcaagg gtctgatgtt cactcagccg aatcaggctg ctggatacat ggctaagctg  2040

atttgggaat ctgtgagcgt gacggtggta gctgcggttg aagcaatgaa ctggcttaag  2100
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Nucleonics sequence listing v5.txt
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tctgctgcta agctgctggc tgctgaggtc aaagataaga agactggaga gattcttcgc   2160

aagcgttgcg ctgtgcattg ggtaactcct gatggtttcc ctgtgtggca ggaatacaag   2220

aagcctattc agacgcgctt gaacctgatg ttcctcggtc agttccgctt acagcctacc   2280

attaacacca acaaagatag cgagattgat gcacacaaac aggagtctgg tatcgctcct   2340

aactttgtac acagccaaga cggtagccac cttcgtaaga ctgtagtgtg ggcacacgag   2400

aagtacggaa tcgaatcttt tgcactgatt cacgactcct tcggtaccat tccggctgac   2460

gctgcgaacc tgttcaaagc agtgcgcgaa actatggttg acacatatga gtcttgtgat   2520

gtactggctg atttctacga ccagttcgct gaccagttgc acgagtctca attggacaaa   2580

atgccagcac ttccggctaa aggtaacttg aacctccgtg acatcttaga gtcggacttc   2640

gcgttcgcgt aa                                                        2652
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<210>  48
<211>  323
<212>  DNA
<213>  Artificial

<220>
<223>  T7 polymerase-based eiRNA

<400>  48
atcactcccc tgtgaggaac tactgtcttc acgcagaaag cgtctagcca tggcgttagt     60

atgagtgtcg tgcagcctcc aggacccccc ctcccgggag agccatagtg gtctgcggaa    120

ccggtgagta caccggaatt gccaggacga ccgggtcctt tcttggatga acccgctcaa    180

tgcctggaga tttgggcgtg ccccccgcgag actgctagcc gagtagtgtt gggtcgcgaa    240

aggccttgtg gtactgcctg atagggtgct tgcgagtgcc ccgggaggtc tcgtagaccg    300

tgcaccatga gcacaaatcc taa                                            323
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